

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Walter W. Collins
 Application No. : 09/680,697
 Filed : October 6, 2000
 For : FOLDING KNIFE WITH ACTUATABLE SAFETY LOCKING
 MECHANISM

Examiner : Clark F. Dexter
 Art Unit : 3724
 Docket No. : 530055.413R1
 Date : January 27, 2009

Mail Stop Appeal Brief - Patents
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

SUMMARY OF CLAIMED SUBJECT MATTER ON APPEAL

Commissioner for Patents:

This summary is being filed in furtherance of the Notice of Appeal, filed in this case on June 12, 2008, and in response to the Notification of Non-Compliant Appeal Brief, mailed on January 6, 2009. Since the only issue identified in the January 6, 2009 Notice of Non-Compliant Appeal Brief is the purported failure under 37 CFR 41.37(C)(1)(v), this paper providing a summary of the claimed subject matter is being supplied instead of an entire new brief, in accordance with MPEP § 1205.03.

V. SUMMARY OF CLAIMED SUBJECT MATTER

A user frequently has a need to open a pocket knife with one hand. As one example, if he has rope in one hand that he needs to cut at a specific place, with this invention, he can continue to hold the rope with one hand at the desired location, remove the knife from his pocket with his other hand, open the knife with that other hand, and then use the knife to cut the rope he is holding. This was not possible with any knife of the prior art.

Compare the usefulness of a knife that can be opened with one hand to the prior art, standard pocket knife. In the prior art, a user needed to set the rope down, use two hands to open the knife, one to hold the handle and the other to pull out the blade, then, once the knife is open, transfer it to one hand, while picking up the rope again to cut it at the correct location.

A further advantage is that the knife can easily be opened by a person while wearing gloves. They do not need to take their gloves off in order to open this knife, they can do so just as easily, or perhaps even more easily while wearing gloves than without them on.

The benefit to the rancher, farmer, hiker, field worker, mechanic and everyday user to a knife that can be opened with one hand is tremendous. There are many situations in which being able to open the knife with a single hand is not only beneficial, but essential to facilitate use of the knife.

The product that is the subject of this reissue patent application received the 1997 Blade Show “Most Innovative American Design” award.¹ It opened up a whole new class of knives: assisted opening knives. Prior to this invention, the only spring loaded knife that could be opened with one hand was a switchblade, (also called an automatic knife) and these are illegal under various Federal and state laws. A knife made according to this invention is not a switchblade and has been specifically ruled as legal under Federal knife laws.

The claimed embodiments of the reissue application cover this spring assisted knife. The claims are directed to a folding knife, also called a pocket knife, and in particular to aspects related to a mechanism having a spring or bias element that retains the blade in a closed position and also allows the blade to be readily opened with one hand (**1:61-67**).² The same spring that assists to open the knife, also holds the blade closed when the knife is in the closed positioned. The user must manually move the knife a certain distance from the closed position towards the open position before the spring will begin to assist in opening the knife. They can do this by engaging ridges on the tang of the blade with their finger or by pressing their thumb into a contact pin on the blade itself. This is explained in detail, below.

¹ See the current attached printout from the web site at www.meyercousa.com/about.lasso (attached hereto as Appendix A).

² For brevity, where specific passages of the specification are cited, they will be indicated, in bold text, by a column number separated from a line number by a colon, *e.g.*, **4:12**, indicating column 4, line 12.

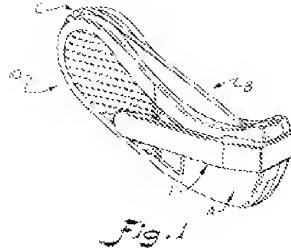


Figure 1
(Figure 1 of application)

Figure 1 shows a folding knife 10 having a handle A, a blade B, and a blade engagement portion C (3:13-16). As illustrated in Figures 2-4 (Figures 4A-4C of application), the blade B is connected to the handle for pivotal movement from a retracted position (Figure 2) through an intermediate position (Figure 3) to an extended position (Figure 4). In the retracted position, a spring 90 that is part of a plunger mechanism E retains the blade B in the retracted state in order to prevent the blade B from falling out of the handle during nonuse (4:61-64). The spring 90 also assists in maintaining the blade B in the extended position with sufficient force so that the blade B may be used without being locked open (4:64-5:4). A locking member D is provided to supply additional means for holding the blade B in the extended position. In the illustrated embodiment, locking member D is depressed to lock the blade B in the extended position (5:4-7).

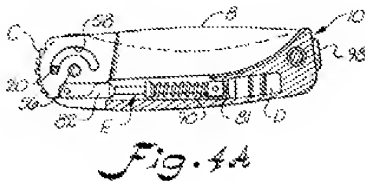


Figure 2
(Figure 4A of application)

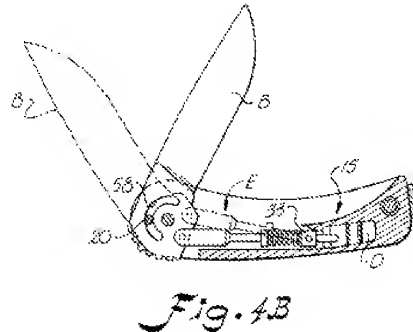


Figure 3
(Figure 4B of application)



Fig. 4C

Figure 4
(Figure 4C of application)

The spring 90 provides a biasing force to the blade B, such that when the blade B is in a retracted position (Figure 2) or a partially deployed position (as illustrated by the solid-lined blade in Figure 3), the spring biases the blade B toward the retracted position, and when the blade is in an extended position (Figure 4) or a partially closed position (as illustrated by the dashed-lined blade in Figure 3), the spring biases the blade B toward the extended position. When the blade is in the retracted position, the spring 90 safely retains the blade therein, until a user applies an opening force to the blade B and manually moves the blade toward an intermediate position. (Appellant points out that the inventive knife is legal under Federal law and is not classified as a switchblade or an automatic knife because of these features.)

When the blade B is moved manually past the intermediate position, the spring biases the blade B toward the extended position, thus assisting in opening the blade B. Figures 5A to 5C of the as filed application (reproduced as Figures 5-7, below) show how the user is able to open the knife with only one hand.



Fig. 5A

Figure 5
(Figure 5A of application)

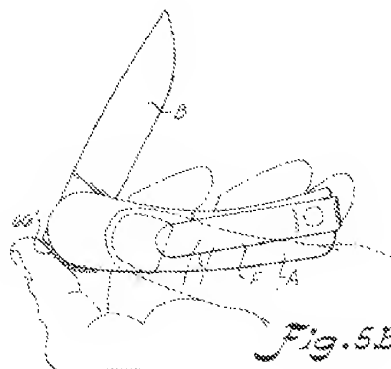


Fig. 5B

Figure 6
(Figure 5B of application)

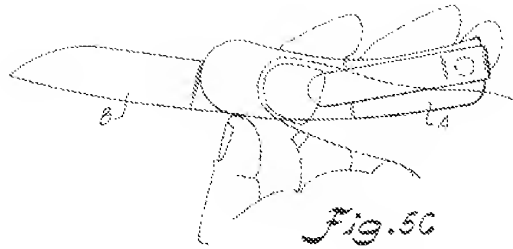


Figure 7
(Figure 5C of application)

To facilitate opening the blade B with one hand, a user places their finger on the tang of the blade, as shown in Figure 5, above, and is able to gain purchase of an engagement profile, for example, a plurality of upstanding ridges 66', located on the blade B and pull the blade B toward the intermediate position past which point the spring 90 assists in moving the blade B to the extended position (5:8-17). Alternatively, a contact pin may be provided such that the user can apply an opening force to the blade with a thumb or a finger of the hand holding the knife (5:40-45). The user then moves the blade from the closed position towards the open position, as shown in Figure 6, above. Once the blade reaches the intermediate position shown in Figure 6, towards partly open, the spring 90 transitions from assisting to close the knife to assisting to open the knife, and rapidly opens to the fully open position, as shown in Figure 7.

As pointed out in the application as filed, a user can open the blade with their thumb or forefinger (5:8-17). The blade can be opened by the user with one hand (5:15-17). Further, a person wearing gloves or with limited hand mobility can easily open the knife.

There is no release button of the type a switch blade uses, rather, the user himself moves the blade towards the open position, and once the spring passes the intermediate point, the spring will now act to force the blade open rather than hold the blade closed. Once in the fully extended position, shown in Figure 7, above, the spring 90 holds the blade B with sufficient force so that the blade B may be used without being locked (5:1-4). Additionally, a locking member D may be used to lock the blade B in an extended position (5:4-7).

The unique combination of features of the present invention is particularly advantageous in that it facilitates (i) retaining a blade of a knife in a retracted position, (ii)

holding the blade in an extended position, and (iii) opening of a knife blade with one hand, all in a manner never before possible with legal knives of the prior art.

Of course, this summary has been provided as a general description of subject matter and does not limit or define the claims or their meaning. The scopes of the respective claims are to be construed by their own terms and not by this summary.

Correlation of Claims and Specification

Hereafter is a concise listing of the claims under appeal correlated with subject matter on which each element reads, from the specification. Text in the specification is referenced, in bold type, by column and line number, separated by a colon. For example, **4:12** refers to text beginning at column 4, line 12. This listing is provided as required under 37 CFR § 41.37(c)(1)(v) for the purpose of simplifying review of the claims and subject matter. It is not to be construed as limiting the claims to the specific subject matter referenced, nor to the embodiments disclosed in the specification.

23. A folding knife, comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) having a blade cavity (15, **3:19-26**, Fig. 4B) and a first end (16, **3:26-27**, Fig. 3; 34, **3:39-40**, Fig. 3);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) having a first end (51, **3:61-62**, Fig. 3) and a second end (53, **3:61-62**, Fig. 3) opposite said first end (51, **3:61-62**, Fig. 3), said first end (51, **3:61-62**, Fig. 3) of said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) having an aperture (hole receiving blade pivot 56, **3:64-65**, Fig. 3, 4A);

a blade pivot (56, **3:64-65**, Figs. 3, 4A) connected to said first end (16, **3:26-27**, Fig. 3; 34, **3:39-40**, Fig. 3) of said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) and extending through the aperture (hole receiving blade pivot 56, **3:64-66**, Figs. 3, 4A) for pivotal movement of said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) about said blade pivot (56, **3:64-65**, Figs. 3, 4A) between an extended position (Figs. 4C, 5C) wherein the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is outside of said blade cavity (15, **3:19-26**, Fig. 4B) and a retracted position (Figs. 4A, 5A) wherein the majority of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is within said blade cavity (15, **3:19-26**, Fig. 4B); and

a plunger (E, **3:13-18, 4:38-59**, Figs. 3 and 4A-4C) including a spring (90, **4:38-43**, Figs. 3 and 4A), the plunger (E, **3:13-18, 4:38-59**, Figs. 3 and 4A-4C) pivotally connected to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) at a first end (proximate end 87, Fig. 3), and pivotally coupled to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) at a second end (proximate pins 95, Fig. 3), the spring (90, **4:38-43**, Figs. 3 and 4A) being maximally deformed when the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is pivoted to an intermediate point between the extended position (Figs. 4C, 5C) and retracted position (Figs. 4A, 5A), thereby causing the spring (90, **4:38-43**, Figs. 3 and 4A) to assist opening of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) when the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is pivoted from the retracted position (Figs. 4A, 5A) toward the extended position (Figs. 4C, 5C) beyond the intermediate point.

24. A knife as defined in claim 23, wherein said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) includes said first end (51, **3:61-62**, Fig. 3) of said blade having an extension projecting outwardly (60, **4:3-19**, Fig. 3) from said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) when said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is in said retracted position (Figs. 4A, 5A); said extension (60, **4:3-19**, Fig. 3) defining an extreme edge portion (64, **4:3-19**, Fig. 3) with a plurality of ridges (66, **4:3-19**, Fig. 3) thereon for contact by a user when moving the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) from said retracted position (Figs. 4A, 5A) to said extended position (Figs. 4C, 5C).

25. A knife as defined in claim 23, further comprising a safety member (D, **3:13-18, 4:20-37**, Figs. 2, 3, 4A-4C) connected to said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) for movement between a locking position (**4:26-38**, Fig. 6) and an unlocking position (**4:26-38**, Fig. 7); said safety member (D, **3:13-18, 4:20-37**, Figs. 2, 3, 4A-4C) defining an engagement portion (76, **4:28-33**, Figs. 6-7) projecting into a path of movement of said plunger (E, **3:13-18, 4:38-59**, Figs. 3 and 4A-4C) when said safety member (D, **3:13-18, 4:20-37**, Figs. 2, 3, 4A-4C) is in said locking position (Fig. 6) for contacting and restraining movement of said plunger (E, **3:13-18, 4:38-59**, Figs. 3 and 4A-4C) when said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-

5C) is in said extended position (Figs. 4C, 5C), to thereby lock said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) in said extended position (Figs. 4C, 5C).

27. A knife as defined in claim 23, further comprising said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) defining a first side and a second side opposite said first side and a belt clip (F, **3:13-18**, Figs. 1, 2 and 5A-5C) connected to said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) adjacent one of said first and second sides of said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C).

28. A knife as defined in claim 23, wherein the first end of said plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) includes a clevis (82, **4:38-59**, Figs. 3 and 4A) having a pin (86, **4:38-59**, Fig. 3) pivotally connected to said first end (51, **3:61-62**, Fig. 3) of said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C).

29. A knife as defined in claim 23, wherein said first end (51, **3:61-62**, Fig. 3) of said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) includes an arcuate slot (58, **3:61-4:4**, Figs. 3 and 4A-4C) and wherein said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) includes a pin (20, **3:61-4:4**, Figs. 3 and 4A-4C) carried in said arcuate slot (58, **3:61-4:4**, Figs. 3 and 4A-4C), said arcuate slot (58, **3:61-4:4**, Figs. 3 and 4A-4C) having a first end and a second end, and said first end of said arcuate slot (58, **3:61-4:4**, Figs. 3 and 4A-4C) limiting said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) from movement beyond said extended position (Figs. 4C, 5C).

34. A folding knife comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) pivoted on said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) for movement between stowed (Figs. 4A, 5A) and deployed conditions (Figs. 4C, 5C) relative to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C); and

an elongate, force-transmitting biasing spring (90, **4:38-43**, Figs. 3 and 4A) having a variable length, the spring (90, **4:38-43**, Figs. 3 and 4A) operatively attached between said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) and said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), where said spring (90, **4:38-43**, Figs. 3 and 4A) exhibits both an increase and a decrease

in the length of the spring as said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is moved from the stowed condition (Figs. 4A, 5A) to the deployed condition (Figs. 4C, 5C).

36. The knife of claim 34 wherein the operative attachment of said spring (90, **4:38-43**, Figs. 3 and 4A) to said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) comprises a plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) operatively interconnecting the spring (90, **4:38-43**, Figs. 3 and 4A) to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C).

37. A knife as defined in claim 36, further comprising a safety member (D, **3:13-18**, **4:20-37**, Figs. 2, 3, 4A-4C) connected to said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) for movement between a locking position (Fig. 6) and an unlocking position (Fig. 7); said safety member (D, **3:13-18**, **4:20-37**, Figs. 2, 3, 4A-4C) defining an engagement portion (76, **4:28-33**, Figs. 6-7) projecting into the path of movement of said plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) for contacting said plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C).

45. A knife comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) pivotally coupled to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) to be moveable about a blade pivot point (center point of 56, **3:64-66**, Figs. 3, 4A), such that the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) moves between a stowed position (Figs. 4A, 5A) and a deployed position (Figs. 4C, 5C);

a plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) coupled between the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) and the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) such that a portion of the plunger (center point of holes 84, **4:38-50**; Fig. 3) remains a fixed distance (**4:52-57**) from the blade pivot point (center point of 56, **3:64-66**, Figs. 3, 4A); and

a spring (90, **4:38-43**, Figs. 3 and 4A) coupled to the plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) to act on the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) to urge the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) into the stowed position (Figs. 4A, 5A) when the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is moved to the stowed position (Figs. 4A, 5A), and operates on the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) to urge the blade (B,

3:13-18, Figs. 1, 2, 4A-4C and 5A-5C) toward the deployed position (Figs. 4C, 5C) when the blade is moved by an outside force from the stowed position (Figs. 4A, 5A) at least partially toward the deployed position (Figs. 4C, 5C).

52. A folding knife comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) having a tang coupled to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) configured to rotate, relative to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), between a retracted position (Figs. 4A, 5A) and an extended position (Figs. 4C, 5C);

biasing means (E, 90, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) for holding the blade in the retracted position (Figs. 4A, 5A) in the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) while the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is in the retracted position (Figs. 4A, 5A) and for biasing the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) toward the extended position (Figs. 4C, 5C) relative to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) when the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is moved from the retracted position (Figs. 4A, 5A) past a point of maximum bias toward the extended position (Figs. 4C, 5C); and

moving means (C, **4:14-19**, Figs. 1, 2, and 4A; 66, 66', **4:4-19**, Figs. 3 and 5A-5B; 63', **5:40-45**, Fig. 8B) for moving the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) from the retracted position (Figs. 4A, 5A) to the extended position (Figs. 4C, 5C) with one hand while holding the knife (10, Fig. 1) with the same one hand.

54. The folding knife of claim 52 wherein the moving means comprises at least one of a plurality of ridges (66, **4:3-19**, Fig. 3) formed on the tang of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C), a plurality of directional saw-like teeth (66', **4:13-19**, Figs. 5A-5B) formed on the tang of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C), or a pin (63', **5:40-45**, Fig. 8B) coupled to an upper portion of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C).

58. A folding knife comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) having a tang coupled to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) configured to rotate, relative to the handle, through an arc between a retracted position (Figs. 4A, 5A) and an extended position (Figs. 4C, 5C) when an opening force is applied to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C);

a contact pin (63', **5:40-45**, Fig. 8B) coupled to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) and extending outward from the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C), positioned such that a user, holding the knife (10, Fig. 1) in one hand, can apply an opening force to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) with a thumb or finger of the same hand;

a biasing element including a spring (90, **4:38-43**, Figs. 3 and 4A);

a first coupling element (92, **4:38-50**, Fig. 3) operatively coupling a first end of the biasing element (90, **4:38-43**, Figs. 3 and 4A) to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C); and

a second coupling element (82, **4:38-59**, Fig. 3) operatively coupling a second end of the biasing element (90, **4:38-43**, Figs. 3 and 4A) to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C).

59. The knife of claim 58 wherein the biasing element (90, **4:38-43**, Figs. 3 and 4A) is arranged such that the spring (90, **4:38-43**, Figs. 3 and 4A) thereof increases in tension to a point of maximum tension as the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is moved through the arc from the retracted position (Figs. 4A, 5A) toward the extended position (Figs. 4C, 5C), then decreases in tension as the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) continues past the point of maximum tension toward the extended position (Figs. 4C, 5C).

60. The knife of claim 58 further including a plurality of ridges (66, **4:3-19**, Fig. 3) positioned on the tang of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C).

62. A folding knife comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) having a tang coupled to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) configured to rotate, relative to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), through an arc between a retracted position (Figs. 4A, 5A) and an extended position (Figs. 4C, 5C) when an opening force is applied to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C);

a contact pin (63', **5:40-45**, Fig. 8B) on the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C), positioned such that a user, holding the knife (10, Fig. 1) in one hand, can apply an opening force to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) with a thumb or finger of the same hand;

a biasing element including a spring (90, **4:38-43**, Figs. 3 and 4A), configured to apply a closing force to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) while the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is in the retracted position (Figs. 4A, 5A);

a first coupling element (92, **4:38-50**, Fig. 3) operatively coupling a first end of the biasing element (90, **4:38-43**, Figs. 3 and 4A) to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C); and

a second coupling element (82, **4:38-59**, Fig. 3) operatively coupling a second end of the biasing element (90, **4:38-43**, Figs. 3 and 4A) to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C).

63. A folding knife comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) having a tang coupled to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) configured to rotate, relative to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), through an arc between a retracted position (Figs. 4A, 5A) and an extended position (Figs. 4C, 5C) when an opening force is applied to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C);

a contact pin (63', **5:40-45**, Fig. 8B) on the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C), extending perpendicular to a plane of travel of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) and positioned such that a user, holding the knife (10, Fig. 1) in one hand, can

apply an opening force to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) with a thumb or finger of the same hand;

a biasing element including a spring (90, **4:38-43**, Figs. 3 and 4A), configured to resist rotation of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) toward the extended position (Figs. 4C, 5C) while the blade is in the retracted position (Figs. 4A, 5A);

a first coupling element (92, **4:38-50**, Fig. 3) operatively coupling a first end of the biasing element (90, **4:38-43**, Figs. 3 and 4A) to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C); and

a second coupling element (82, **4:38-59**, Fig. 3) operatively coupling a second end of the biasing element (90, **4:38-43**, Figs. 3 and 4A) to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C).

65. A folding knife, comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) having a blade cavity (15, **3:19-26**, Fig. 4B) and a first end (16, **3:26-27**, Fig. 3; 34, **3:39-40**, Fig. 3);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) having a first end (51, **3:61-62**, Fig. 3) and a second end (53) opposite said first end; said first end (51, **3:61-62**, Fig. 3) of said blade having an aperture (hole receiving blade pivot 56, **3:64-66**, Figs. 3, 4A);

a blade pivot (56, **3:64-65**, Figs. 3, 4A) connected to said first end (16, **3:26-27**, Fig. 3; 34, **3:39-40**, Fig. 3) of said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) and extending through the aperture (hole receiving blade pivot 56, **3:64-66**, Figs. 3, 4A) for pivotal movement of said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) about said blade pivot (56, **3:64-65**, Figs. 3, 4A) between an extended position (Figs. 4C, 5C) wherein the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is outside of said blade cavity (15, **3:19-26**, Fig. 4B) and a retracted position (Figs. 4A, 5A) wherein the majority of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is within said blade cavity (15, **3:19-26**, Fig. 4B);

a plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) including a spring (90, **4:38-43**, Figs. 3 and 4A), the plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) pivotally connected to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) at a first end, and operatively coupled to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) at a second end, the spring (90, **4:38-43**, Figs. 3 and

4A) being maximally deformed when the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is pivoted to an intermediate point between the extended position (Figs. 4C, 5C) and retracted position (Figs. 4A, 5A), thereby causing the spring (90, **4:38-43**, Figs. 3 and 4A) to assist opening of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) when the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is pivoted from the retracted position (Figs. 4A, 5A) toward the extended position (Figs. 4C, 5C) beyond the intermediate point; and

a safety member (D, **3:13-18**, **4:20-37**, Figs. 2, 3, 4A-4C) connected to said handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C) for movement between a locking position (Fig. 6) and an unlocking position (Fig. 7); said safety member (D, **3:13-18**, **4:20-37**, Figs. 2, 3, 4A-4C) defining an engagement portion (76, **4:28-33**, Figs. 6-7) projecting into a path of movement of said plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) when said safety member (D, **3:13-18**, **4:20-37**, Figs. 2, 3, 4A-4C) is in said locking position (Fig. 6) for contacting and restraining movement of said plunger (E, **3:13-18**, **4:38-59**, Figs. 3 and 4A-4C) when said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is in said extended position (Figs. 4C, 5C), to thereby lock said blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) in said extended position (Figs. 4C, 5C).

66. A folding knife comprising:

a handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C);

a blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) having a tang coupled to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) configured to rotate, relative to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C), through an arc between a retracted position (Figs. 4A, 5A) and an extended position (Figs. 4C, 5C) when an opening force is applied to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C);

a contact pin (63', **5:40-45**, Fig. 8B) on the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C), extending perpendicular to a plane of travel of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) and positioned such that a user, holding the knife (10, Fig. 1) in one hand, can apply opening force to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) with a finger of the same hand;

a biasing element including a spring (90, **4:38-43**, Figs. 3 and 4A), configured to resist rotation of the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) toward the extended

position (Figs. 4C, 5C) while the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C) is in the retracted position (Figs. 4A, 5A);

a first coupling element (92, **4:38-50**, Fig. 3) operatively coupling a first end of the biasing element to the handle (A, **3:13-18**, Figs. 1, 2 and 5A-5C);

a second coupling element (82, **4:38-59**, Fig. 3) operatively coupling a second end of the biasing element to the blade (B, **3:13-18**, Figs. 1, 2, 4A-4C and 5A-5C); and

a locking member (D, **3:13-18**, **4:20-37**, Figs. 2, 3, 4A-4C) positioned in the handle and having a first position in which the blade may be freely moved between the retracted (Figs. 4A, 5A) and extended positions (Figs. 4C, 5C) and a second position in which the blade is locked in the extended position (Figs. 4C, 5C).

Respectfully submitted,

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